NAME _____ DATE _____ PERIOD _____

Chapter 7

SCORE _____

Write the letter for the correct answer in the blank at the right of each question.

1. There are 15 plums and 9 apples in a fruit bowl. Find the ratio of apples to plums. 1. A

   A. 3:5 **B.** 3:8 **C.** 5:3 **D.** 8:3

2. The scale drawing of a porch is 8 inches wide by 12 inches long. If the actual porch is 12 feet wide, find the length of the porch. 2. D

   A. 8 ft **B.** 10 ft **C.** 16 ft **D.** 18 ft $\frac{8}{12} = \frac{12}{x}$

3. Solve $\frac{5}{6} = \frac{4}{x}$. 3. B

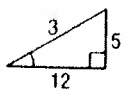
   A. 4.6 **B.** 4.8 **C.** 5 **D.** 7

4. A quality control technician checked a sample of 30 bulbs. Two of the bulbs were defective. If the sample was representative, find the number of bulbs expected to be defective in a case of 450. 4. B

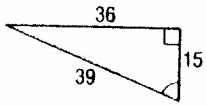
   A. 24 **B.** 30 **C.** 36 **D.** 45

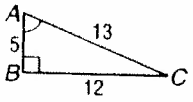
5. Find the triangle similar to $\triangle ABC$ at the right. 5. B

   A.

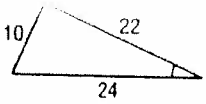


   B.

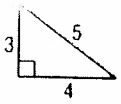




   C.

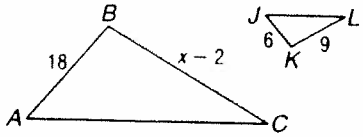


   D.



6. Find x if $\triangle ABC \sim \triangle JKL$. 6. D

   A. 10 **B.** 14 **C.** 25 **D.** 29

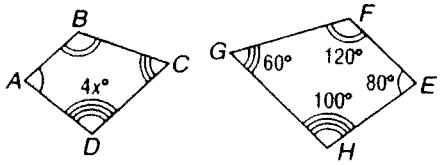


7. Quadrilateral $ABCD \sim$ quadrilateral $PQRS$. If $AB = 10$, $BC = 6$, $PS = 12$, and $QR = 4$, find the scale factor of $ABCD$ to $PQRS$. 7. B

   A. $\frac{1}{2}$ **B.** $\frac{3}{2}$ **C.** $\frac{5}{3}$ **D.** $\frac{5}{6}$

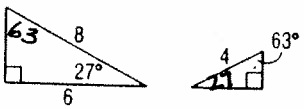
8. If quadrilateral $ABCD \sim$ quadrilateral $EFGH$, find x. 8. C

   A. 15 **B.** 20 **C.** 25 **D.** 30



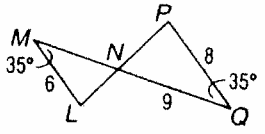
9. Which theorem or postulate can be used to prove that these two triangles are similar? 9. A

   A. AA **B.** SAS **C.** ~~SSA~~ **D.** SSS



10. Find MN. 10. B

    A. $5\frac{1}{3}$ **B.** $6\frac{3}{4}$ **C.** 7 **D.** 12



Assessments

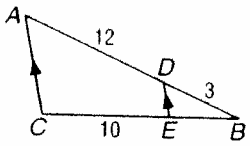
NAME _____ DATE _____ PERIOD _____

Chapter 6 Test

11. A 5-foot tall student cast a 4-foot shadow. If the tree next to her cast a 44-foot shadow, what is the height of the tree? **11.** D

A. $35\frac{1}{5}$ ft **B.** 45 ft **C.** $51\frac{1}{2}$ ft **D.** 55 ft

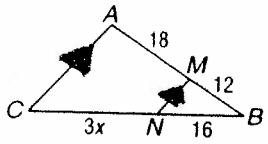
12. In $\triangle ABC$, $\overline{DE} \parallel \overline{AC}$. If $AD = 12$, $BD = 3$, and $CE = 10$, find BE. **12.** D



A. 1 **B.** $1\frac{1}{2}$

C. 2 **D.** $2\frac{1}{2}$

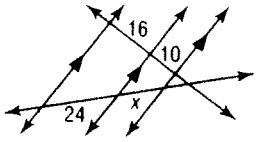
13. Find x so that $\overline{AC} \parallel \overline{MN}$ in $\triangle ABC$. **13.** A



A. 8 **B.** 10

C. 25 **D.** 29

14. Find x. **14.** B



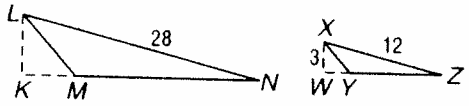
A. 14 **B.** 15

C. 16 **D.** 18

15. If $\triangle FGH \sim \triangle PQR$, $FG = 6$, $PQ = 10$, and the perimeter of $\triangle PQR$ is 35, find the perimeter of $\triangle FGH$. **15.** A

$\frac{3}{5} = \frac{}{35}$ **A.** 21 **B.** 27 **C.** 31 **D.** $58\frac{1}{3}$

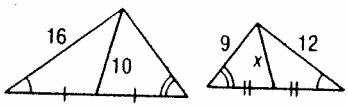
16. $\triangle LMN \sim \triangle XYZ$ with altitudes $\overline{KL}$ and $\overline{WX}$. Find KL. **16.** B



A. 6 **B.** 7

C. 9 **D.** 19

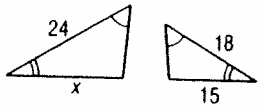
17. Find x. **17.** D



A. 5 **B.** 6

C. $6\frac{1}{2}$ **D.** $7\frac{1}{2}$

18. Find x. **18.** C



A. 16 **B.** 18

C. 20 **D.** 21